Over twenty-five years of publishing research articles related to the theory and applications of psychological type and the Myers-Briggs Type Indicator® instrument.

66

Journal of Psychological Type®

Issue 12 | DEC 06

> In terms of psychological type, persons diagnosed with Asperger's Syndrome (high-functioning autism) may actually be I_TPs with normal type development who are misdiagnosed or I_TPs with poor type development. Their mothers may prefer E_FJ.

Asperger's Syndrome and Psychological Type

Robert G. Chester

ABSTRACT

Asperger's Syndrome (AS) is a form of autism, which, in many cases, seems indistinguishable from certain of the Jungian/Myers-Briggs personality types. This article explores the relationship between AS and psychological type. Anecdotes on both sides of the question illuminate a review of the literature on AS and type. Direct and often conflicting quotations clarify and contrast these differing views of personality. There are three main findings: First, faulty diagnostic criteria for AS in combination with the pathological bias of contemporary psychology result in the misdiagnosis of the disorder in otherwise normal types. Next, where the diagnosis seems appropriate, poor type development is indicated. Finally, analysis suggests that individuals diagnosed with Asperger's Syndrome have type preferences of I_TP, whereas mothers of children with the disorder prefer E_FJ.

Note: For the Myers-Briggs Type Indicator® (MBTI®) instrument, the eight preference categories are the following: Extraversion (E) versus Introversion (I); Sensing (S) versus Intuition (N); Thinking (T) versus Feeling (F); Judging (J) versus Perceiving (P).

INTRODUCTION

Autism today is seen as a spectrum disorder ranging from the extremely handicapped to almost normal. At the extremely handicapped end of the spectrum there is classic autism, which was described by Kanner (1943). The fundamental pathological manifestation of Kanner's Syndrome is the "inability to relate . . . to people and situations from the beginning of life" (p. 242). Where autism shades into normal behavior, there is Asperger's Syndrome (AS). People with AS differ considerably

Published by the Center for Applications of Psychological Type
Thomas G. Carskadon, Ph.D., Editor

from those with Kanner's Syndrome. They can seem quite ordinary, with the exception perhaps of a few notable idiosyncrasies. AS is thus often referred to as "high-functioning autism." Throughout this article the words "autism" and "autistic" will refer to the high-functioning variant unless otherwise noted.

Asperger's Syndrome is a confusing affliction, even for those who study, diagnose, and suffer from it. On the one hand, it is a neurological disorder—a disability. On the other hand, there are those who argue that AS is not so much an impairment as it is a "different cognitive style," another way of being that admittedly diverges significantly from the social norm but "has enormous practical value in its own right" (Baron-Cohen, 2002, p. 8).

Striking similarities exist between the symptomatic expression of Asperger's Syndrome and several of the Myers-Briggs personality types. In fact, it is sometimes difficult to tell whether a person's behavior represents a type characteristic or a symptom of the disorder. The following quotations show just how blurred the line between pathology and type can sometimes be, and you should try to identify which of the quotations are by people who have been diagnosed with autism or Asperger's Syndrome and which merely reflect the speaker's type. The answers appear at the end of the article.

Asperger's or Type?

1. "I think in pictures. Words are like a second language to me."
2. "If I'm explaining a concept, I catch myself . . . pointing to something that exists only in my mind."
3. "I've been writing in Assembly Language for a couple of months, and ENGLISH seems foreign."
4. "I like people, but I find them most strange, illogical, petty, and superficial. I can intellectually grasp, but not relate to, their motives."
5. "I like coming up here because I have so much fun." (This comment occurred after a discussion of calculus, space curves, and mathematical techniques.)
6. "As a child I wanted to focus on each one, and if you let them mix you would lose some of the analytical capability of the individual foods."
7. "I would . . . require the food on my plate not to touch each other, and I always ate each item at a time instead of mixed together."
8. "Continues to be rather a loner and becomes noticeably upset if other children try to include her in their games or activities."
9. "She avoids the other children, plays alone."

The syndrome that bears his name was first described by Austrian pediatrician Hans Asperger in 1944. Asperger's paper, which was written in German, languished until it was translated into English (Asperger, 1944/1991). Three years later, Asperger's Disorder was added to the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV, 1994), the main diagnostic reference for mental health professionals in the United States. Since then, reported diagnoses of AS have soared. "More than one million Americans may have it," wrote Madeleine Nash (2002, p. 48) in a cover article for *Time* magazine. Although professionals and the public alike universally express dismay at the increase in Asperger's cases, the reasons for the increase are not known. Four factors that may contribute to the proliferation of Asperger's cases will be examined: (1) faulty diagnostic criteria, (2) the pathological bias of contemporary psychology, (3) inappropriate diagnosis of well-developed types, and (4) appropriate diagnosis of poorly developed types. In a closing section, I will attempt to characterize the relationship between the mothers of Asperger's children and their offspring and to identify the mothers' type preferences.

FACULTY DIAGNOSTIC CRITERIA

The first factor that may account for some of the increase in AS is the criteria by which it is diagnosed. There are six main criteria for Asperger's Disorder in the DSM-IV (1994). Additionally, criteria A and B each have four subcriteria that are not listed here.

299.80 Asperger's Disorder

A. Qualitative impairment in social interaction.
B. Restricted, repetitive, and stereotyped patterns of behavior, interests, and activities.
C. Clinically significant impairment in social, occupational, or other important areas of functioning.
D. No clinically significant general delay in language.
E. No clinically significant delay in cognitive development or in the development of age-appropriate

self-help skills, adaptive behavior (other than in social interaction), and curiosity about the environment in childhood.

F. Criteria are not met for another specific pervasive developmental disorder or schizophrenia.

At first glance, the diagnostic criteria for Asperger's Disorder seem clear and reasonable. However, like many of the disorders in DSM-IV (1994), the criteria rely on observation and interpretation. There is no conclusive biochemical test for AS (Grandin, 1995). Neither is there a generally accepted diagnostic protocol that, if carefully followed, would distinguish between AS and other mental disorders (Klin, Volkmar, & Sparrow, 2000). The diagnostic criteria have not been embraced by many professionals in the field, and "post-DSM-IV definitions of Asperger's Syndrome continue to vary from person to person" (Mayes, Calhoun, & Crites, 2001, p. 265). Grandin noted that the behavioral criteria are constantly changing. Miller and Ozonoff (1997, p. 250) further suggested, "the DSM-IV criteria may not identify the disorder Asperger originally described," and Mayes et al. wondered whether Asperger's Disorder even exists.

"Striking similarities exist between the symptomatic expression of Asperger's Syndrome and several of the Myers-Briggs personality types."

It is clear that the diagnostic criteria for Asperger's Syndrome are in flux. One consequence of using a model with criteria about which there is little accord may be the misdiagnosis of AS. Disagreement among professionals certainly facilitates misdiagnosis, but whether this results in under- or overdiagnosis of AS is a question that must be answered in another way.

PATHOLOGICAL BIAS OF CONTEMPORARY PSYCHOLOGY

The second of the four elements that may contribute to the proliferation of Asperger's cases is the bias of contemporary psychology toward seeing pathology in almost everyone. To begin, psychological type is based on the functioning of normal people. "So, who is 'normal?'" Pearman and Albritton (1997, p. xvi) asked. Their answer, "In large measure, we all are." Contemporary psychology takes a different tack. For most psychologists, the dominant paradigm is a deviance model.

> The deviance model is concerned with a social collective deviancy which shows how people differ from a reference group, be it successful mathematicians, businessmen, adolescents or schizophrenics. Its focus is on adaptation to the world and failures at such adaptation . . . . For example, it is bad to be too dependent; however, if you are not dependent at all, that is also bad. Thus a person should be close to the mean and any deviations from the mean are regarded as signs of pathology, or indications of limited adaptation. (Quenk, 1984, p. 15)

As Quenk pointed out, non-Jungian psychologists and psychiatrists tend to see behavior on a bell-shaped curve. Only the mean represents true normalcy, and evidence of pathology can be found in almost everyone. Carried to its logical conclusion, the idea of a continuum of human behavior and deviance from the mean predicts pathology in some people who are not generally considered disabled. Among these are Bill Gates, Thomas Jefferson, Albert Einstein, and Isaac Newton.

Gates is flagged because his "voice lacks tone, and he looks young and boyish for his age" (Grandin, 1995, p. 185). Jefferson is said to have worn "an inexpressive face or far-away look" (Ledgin, 2000, p. 14). Ledgin further asserted that Jefferson inclined "toward being a loner and is regarded as shy" (p. 15). Baron-Cohen (2003) wrote, "Newton seems like a classic case. He hardly spoke, was so engrossed in his work that he often forgot to eat, and was lukewarm or bad-tempered with the few friends he had . . . . As a child, Einstein was also a loner and repeated sentences obsessively" (p. 10). Finally, "[Einstein] had a singlemindedness of purpose and a poor memory for things that did not interest him, especially things of a personal nature" (Grandin, p. 181).

In the eyes of these authors, the observed behaviors of these men clearly place them far from the social mean. According to the deviance model, their behaviors suggest a mental disorder. Although there is no reason to argue that type and mental illness cannot coexist, one would hope that the manifestations of such illness would be more clearly indicative of a disorder than "an inexpressive face" or "a singlemindedness of purpose."

According to Keirsey (2003), Jefferson and Einstein

had type preferences of INTP. Newton preferred INTJ, and Bill Gates prefers ENTJ. Is it purely by coincidence that two of the four men share the same type and all four share a temperament? Because Jefferson, Einstein, and Newton are no longer with us to confirm or dispute the attribution of AS and/or their type preferences, and because Mr. Gates isn't likely to do so either, the focus will be on more readily available information about real people. The goal will be to examine the possibility that the deviance model, when coupled with psychiatry's bias toward pathology, results in diagnoses of Asperger's Syndrome in otherwise well-developed types.

INAPPROPRIATE DIAGNOSIS OF WELL-DEVELOPED TYPES

Extraversion and Introversion. From the perspective of psychological type, Extraversion and Introversion are polar opposites. They are sorting categories something like pregnancy: "One is either pregnant or not" (Lawrence, 1993, p. 35). As polar opposites, the preferences reported on the Myers-Briggs Type Indicator® (MBTI®) instrument are mutually exclusive and inherently unmeasureable. "Quantitative interpretation of MBTI results as an indication that a respondent has 'more' or 'less' of a preference is . . . the most pervasive source of misunderstanding and misinterpretation of the MBTI" (Myers, McCaulley, Quenk, & Hammer, 1998, p. 121). Still, the Jungian perspective is not widely accepted:

> The Trait Theory of Personality is the dominant one in contemporary psychology. The person is conceived of as consisting of a bundle of traits; some are stronger, some weaker; some closely associated or correlated with other traits, some having no connection to other traits. (Quenk, 1984, p. 15)

In contrast to type theory, seemingly opposite personality traits can coexist in the same person. A person can show both Introverted and Extraverted traits, for instance. Traits can be measured in terms of "more" or "less," indicating the degree of skill, balance, or maturity that a person has achieved in the development or use of the given trait, and a trait may be compared with the social mean to show the individual's normality or deviation from it. Myers (2002) presented a particularly detailed and persuasive discussion of the differences between psychological traits and Jungian type preferences. Some traits that have been associated with Asperger's Syndrome include the following: solitude, isolation, being a loner; spacing out (involuntarily); shutting out, blocking (deliberately); a hyperaroused nervous system.

Asperger's trait: Solitude, isolation, being a loner. Lori S. Shery is the mother of an Asperger's child. Her son Adam was diagnosed with AS when he was about 6 years old. Shery (2000) said that one of her first clues that all was not well with Adam was when "At birthday parties, he had no interest in the other children or games, preferring instead to sit on the sidelines, staring at the wheels of a musical cassette tape turning round and round" (p. 444).

Although it is not difficult to see that an attentive parent might be concerned about such a child's social development, it is equally easy to point to similar stories about people who have not been diagnosed with AS or any other mental disorder. Such a story is told by P.S. about her own sixth birthday party. In a game of Hide-and-Seek, P.S. hid in a culvert under the road in front of her house. When she was not found, she crawled through the culvert away from the noisy party to her grandmother's house on the other side of the road. She went in the barn and played with a litter of baby kittens for an hour before her father found her (personal communication, Nov 14, 2003). P.S., who provided quotation #9 in the Asperger's or Type exercise, has type preferences of INTJ. She is an Associate Professor Emeritus at a well-known Western university. On the basis of these examples, is Adam a typical Introverted child with an Extraverted mother, or is P.S. an undiagnosed Asperger's case?

Asperger's trait: Spacing out (involuntarily). Temple Grandin has a Ph.D. in Animal Science. She has made a reputation for herself designing innovative slaughterhouse facilities in this country and abroad. Although Grandin was diagnosed as autistic before the diagnosis of Asperger's was available, she is nevertheless at the high-functioning end of the autism spectrum. As one of the more prolific writers of and about high-functioning autistics, she provides a rare insight into what it must be like inside the autistic/Asperger's mind.

Of her own childhood, Grandin (1995) wrote, "When left alone, I would often space out and become hypnotized. I could sit for hours on the beach watching sand dribbling through my fingers" (p. 44). Although many children will spontaneously play for hours at the beach, Grandin (and her doctors, apparently) feel that her singular ability to focus to the extent that she can shut out the world sets her apart. But does it?

The present writer, who prefers the Introverted

attitude, did something similar. As a child, my family and I would go to the local river to swim. When we did, I was usually drawn into the tiny world of the water flow. I could watch the swirl around a rock or in a whirlpool for an eternity. It wasn't so much that I was blocking out the burdensome Extraverted world; the real attraction was that as my eyes were looking at the water my mind was going in a thousand directions.

"It's like me with insects. It's a world within a world" said Georges Huard (in Osborne, 2002, p. 201), who has been diagnosed with AS. I can confirm the "world within a world" motivation for my fascination with flowing water. Is it possible that flowing sand held the same enchantment for Grandin?

Asperger's trait: Shutting out, blocking (deliberately). It is one thing to "space out" involuntarily. It is quite another to deliberately shut out the world. Grandin (1995) wrote, "Rocking and spinning were other ways to shut out the world when I became overloaded with too much noise" (p. 44). Although rocking and spinning motions are characteristic of the more disabling forms of autism, they also occur in other contexts. For instance, members of certain Moslem orders of ascetics practice the achievement of collective ecstasy through whirling dances. Such ascetics are known as dervishes. Moreover, rocking and swaying are common practices during Jewish prayer. They are not *prima facie* evidence of affliction.

Keirsey and Bates (1978/1984) remind us that words that distinguish Introverts from Extraverts are *sociability* and *territoriality*. Extraverts gravitate toward people and external events, whereas Introverts seek private space: private places in the mind and in the environment. Is it possible that Grandin's rocking and spinning have the same purpose as the motions of the various religious practices: to seek a private place in the mind?

Asperger's trait: A hyperaroused nervous system. People with AS talk about their hypersensitive nervous systems that cause them to have painfully intense physical perceptions. About Temple Grandin, Dr. Oliver Sacks wrote, "Here we can see, and relive, what it was like for Temple as a child—the overwhelming sensations of smell and sound and touch she could not blot out" (in Grandin, 1995, p. 12). Grandin repeatedly refers to her "hyperaroused nervous system" (p. 112, photo section, p. 2) or "heightened sensory perceptions" (photo section, p. 7). Sainsbury (2000) commented, "the only everyday sensory experience that [normal] people have that is remotely similar seems to be 'rush hour'" (p. 101).

Do high-functioning autistics live in a kind of permanent rush hour? Unlike some of the other Asperger's traits, this question has been addressed by a number of well-controlled studies, including one by Dr. Jerome Kagan and his associates at Harvard University. The researchers, who studied inhibited and uninhibited children, found,

> The extremely shy, inhibited children had greater physiological reactivity. When they were exposed to new tasks and strange people, their heart rate increased. They also had higher cortisol levels than uninhibited children. Kagan . . . speculates that shy children have a more sensitive sympathetic nervous system, which reacts quickly and intensely. (Grandin, 1995, p. 173)

People with AS talk about their hypersensitive nervous systems that cause them to have painfully intense physical perceptions.

In a similar study, Wilson and Languis (1989) found, "overall data patterns suggest higher arousal and greater cognitively related brain electrical activity for introverts" (p. 14). Myers, McCaulley et al. (1998) wrote in summary, "Introverts appear to do their best thinking in anticipation rather than on the spot; it now seems clear that this is because their minds are so naturally abuzz with activity that they need to shut out external distractions in order to prepare their ideas" (p. 261).

The evidence relating a preference for Introversion or Extraversion to Asperger's Syndrome suggests that Introverts are more likely than Extraverts to be diagnosed with AS. This leads to a quintessential chicken-and-egg question: Are Introverts diagnosed with AS largely because they differ from the Extraverted social norm, or does the preference for Introversion carry an elevated risk for AS and perhaps other mental disorders as well? Just as there seem to be two diametrically opposed ways of looking at the evidence, so too there are two opposing conclusions to be drawn:

> Introversion, if it is a restriction of the self and a narrowing of the relations to the environment, may well be autism in essence.
>
> Hans Asperger (1944/1991, p. 90)

> I believe that there are more than enough genuine pathologies around requiring our attention. Introversion is not one of them.
>
> Naomi Quenk (1996, p. 41)

Sensing and Intuition. The perceiving functions, Sensing and Intuition, gather information. In this section, the S–N dichotomy and its relationship to Asperger's Syndrome will be explored. The evidence will again be largely anecdotal and no firm conclusions will be drawn. The first quotation is from Clark (2000), who wrote, "Intuitives are miscast early in their careers more often than other types largely because intuitives are a minority group in the sensing-dominant culture. Intuitives routinely report feeling quite different from others" (p. 1).

About the same time that Clark was calling attention to the miscasting of Intuitives, Sainsbury (2000), who was diagnosed with Asperger's Disorder at age 20, wrote,

> Here is one of my most vivid memories of school: I am standing in a corner of the playground as usual, as far away as possible from people who might bump into me or shout, gazing into the sky and absorbed in my own thoughts. I am eight or nine years old and have begun to realize that I am different in some nameless but all-pervasive way. (p. 8)

Sainsbury's realization that she is "different in some nameless but all-pervasive way" sounds a lot like one of Clark's Intuitives who "routinely report feeling quite different from others." Asperger's traits that have been identified with this difference are as follows: a poor awareness of the outer world, associative communication, associative thinking, specific-to-general thinking, and visual thinking.

Asperger's trait: A poor awareness of the outer world. People with Asperger's Syndrome are said to have a poor awareness of even the most familiar of physical environments in which they routinely function. Sainsbury (2000) quoted Darius, a university student in the U.K., who has been diagnosed with AS:

> When I was in kindergarten we had to hang up our coats always at the same peg and put our . . . Wellingtons underneath it, in order to avoid confusion when school was over. I did this by some sort of spatial navigation rather like blind people use. I entered the hall and then walked under a certain angle towards the [pegs] on the wall. I would end up before the one I always used (other kids never told me I'd hung my stuff on their peg, so I assume it worked). One day a little boy asked me what my 'picture' was. I hadn't got a clue what he was talking about. So he asked me: well, don't you know where to hang your coat then? Of course I do, I replied rather indignantly. I had to prove that I did, so I went to the hall with him and sort of zeroed in on 'my' coat-peg. Oh, you've got a toadstool he said. And sure enough, there was a picture of a toadstool pasted above my peg. I didn't see why that was so important to him. Only recently did it dawn on me that the child-carers probably put those pictures there so children would know where to hang their coats. (p. 103)

Darius' experience contrasts with the following story by P.S. (INTJ):

> How many times did I go in and out of that door in any given day? There was the sleepy-eyed and yawning eight o'clock entrance, the in-need-of-a-nap after lunch walk by, and the many returns from the ladies' room. I knew every dent in the file cabinets that made up the counter that greeted customers in the outer offices. I recognized the smell of weeds waiting for Master Gardener identification. I could count on the familiar swish-zoom of the Xerox machine. I didn't miss a thing, or so I thought.
>
> The secretaries assumed responsibility for the appearance of the counter. Whatever adorned the top was there for a purpose. I ignored much of that stuff, but one day I walked through the door, and a bright nine by twelve fuchsia pink sign hit me in the eye. It almost glowed; it was so bright. MASTER GARDENER TRAINING BEGINS APRIL 15, it read. I couldn't let that pass.
>
> "Nobody's going to miss that sign," I said with more than a hint of arrogance in my voice.
>
> "Oh, I don't know," my secretary replied. "You've walked by it every day for two weeks and this is the first time you've mentioned it."
>
> I just lowered my head and went without another word into my office.
>
> (Personal communication, July 9, 2003)

Is Darius (or his psychiatrist) improperly reading AS into the admittedly unusual method he used to find his peg, or is P.S. displaying another trait of Asperger's Syndrome?

The most useful function for gaining a detailed awareness of physical surroundings is Extraverted Sensing. For P.S., who has Introverted Intuition as the

dominant, Extraverted Sensing is the inferior or least developed preference. Furthermore, Extraverted Sensing is either the inferior or the third preference for all four of the Introverted Intuitives. Darius' performance in kindergarten seems to place him in the same quadrant.

Another facet of an awareness of the outer world is the realization that your own body exists in part as a component of the external environment. If a person is not attuned to the information from Extraverted Sensing about his or her own body, a situation like the one Grandin (1995) described can occur. "He plunked a jar of Arid deodorant on my desk and told me that my pits stank. People with autism need to be counseled on clothing and grooming" (p. 108).

Although Grandin talks about "people with autism," there are people without autism who are susceptible to the same difficulty. Myers, Kirby, and Myers (1998) pointed out, "It is natural for INTPs to give less attention to their non-preferred Feeling and Sensing parts. If they neglect these too much, however, they may . . . be impractical, forgetting details such as appropriate dress, unpaid bills, physical needs" (p. 23).

The corresponding statement about ISTPs does not mention appropriate dress or physical needs. This is reasonable, because for the ISTP Extraverted Sensing is the auxiliary. An ISTP is going to pay a lot more attention to it than an INTP. Grandin's preference in the external world here seems to be for Intuition.

Asperger's trait: Associative communication. Associative communication is spoken communication that proceeds in leaps and bounds as one idea suggests another that leads in turn to yet a third in seemingly random fashion. The unifying links between ideas are in the mind of the speaker and are rarely communicated to the listener. Although comedian Lily Tomlin (1969–1970) used such communication to hilarious ends, Dr. Rebecca Landa (2000), who studies speech and communication disorders at John Hopkins University, took a more clinical view:

> Individuals with AS and [high functioning autism] have a reputation for being associative, which may lead them to shift a topic abruptly when the current topic reminds them of something else. (p. 137)

Landa continued:

> The subject may infer that the listener already knows the conceptual link between segments of information and not bother to articulate it . . . . Impaired ability to use cohesive devices handicaps the individual's ability to clearly mark the relationship of current to previous discourse. (p. 140)

In contrast to Landa's pathological view of associative discourse, Myers and Myers (1980) wrote the following about communication between Sensing and Intuitive types:

> If you are the intuitive, you need to observe the following rules: First, say explicitly, *at the start*, what you are talking about. . . . Second, finish your sentences; you know what the rest of the sentence is, but your listeners do not. Third, give notice when changing the subject. And last, don't switch back and forth between subjects. Your listeners cannot see the parentheses. Finish one point and move *explicitly* to the next. (p. 210)

Clark (2000) noted that the ratio of Sensing types to Intuitives is about three to one. Given that the majority of listeners prefer Sensing and that a minority of speakers prefer Intuition, it seems reasonable to assume that some of the Intuitive speakers will be seen by some of the Sensing listeners as communicating associatively. The association between associative communication and Intuition cannot therefore be dismissed.

Asperger's trait: Associative thinking. From associative communication with others, it is but a short step to associative communication with oneself. Once again Grandin (1995) allows us to share her internal process.

> If I let my mind wander, the video jumps in a kind of free association from . . . to . . . . Each video memory triggers another in this associative fashion, and my daydreams may wander far from the design problem. . . . People with more severe autism have difficulty stopping endless associations. I am able to stop them and get my mind back on track. When I find my mind wandering too far away from a design problem I am trying to solve, I just tell myself to get back to the problem. (p. 25)

Lawrence (1993) provided an alternative interpretation: "Sensing types . . . do not automatically link idea to idea, as intuitive types tend to do" (p. 52). Surely the endless associations that Grandin (1995) says are typical of the more severely autistic would present a difficulty, but for a high-functioning autistic person such as Grandin herself, who has the ability to stop her associative thinking and "get back to the problem," the question becomes one of ability or disability—

Asperger's or type? Grandin's self-report seems to suggest a preference for Intuition, but self-reports can be misleading.

Asperger's trait: Specific-to-general thinking. Myers, McCaulley et al. (1998) asserted, "The research . . . suggests that Sensing types move first from the particular to the general, and Intuitive types the other way around" (p. 263). From this point of view, Grandin (1995) seems to prefer Sensing. She wrote, "My thinking pattern always starts with specifics and works toward generalization," finishing the sentence with, "in an associational and nonsequential way" (p. 32). So, is she moving "from the particular to the general" in a Sensing manner as Myers et al. suggested, or does she prefer linking "idea to idea" in an associational, Intuitive way? A subsequent example does little to clear up the confusion. "How does specific-to-general thinking work? Imagine that a 1,000-piece jigsaw puzzle is presented to you in a paper bag. As you start to put the puzzle together the picture will start to reveal itself" (Grandin, p. 199).

So far the process sounds consistent with the "particular to the general" procedure favored by Sensing types. Then Grandin wrote:

> When less than twenty percent of the puzzle is completed you may be able to see what the picture will be. If there was a horse's ear in the upper right hand corner and a horse's back foot in the lower left-hand corner, you could be fairly certain a horse was the main picture of the puzzle. (p. 199)

Predicting the whole picture with less than 20% complete sounds like a flash of Intuitive insight. "That is how I solve problems and do trouble-shooting in the livestock industry. I look for little clues and small details that can be put together to form a new theory" (Grandin, 1995, p. 199). The first part of her statement, looking for "little clues and small details that can be put together . . ." is reminiscent of Sensing, but the last part, ". . . to form a new theory" gives pause. Sensing types are rarely interested in forming new theories; that's usually the domain of the Intuitive.

Although Grandin (1995) gives mixed signals about her Perceiving preference, Sainsbury (2000) is less ambiguous: "Typically, people with Asperger's have an unusual learning style: intensely concrete rather than abstract, absorbed in details while having significant difficulty perceiving overall 'gestalts'" (p. 24). On this point at least, the data are inconclusive. Grandin seems to describe both Sensing and Intuitive processes, whereas Sainsbury's words strongly suggest a Sensing preference.

Asperger's trait: Visual thinking. Grandin (1995) has an excellent visual imagination. She is so enamored with the idea that the ability to think visually sets her apart that her second autobiographical book is titled *Thinking in Pictures and Other Reports From My Life With Autism*. Again and again she refers to visual thinking as the *sine qua non* of the Asperger's personality:

> Visual thinking has enabled me to build entire systems in my imagination. (p. 19)
>
> Every design problem I've ever solved started with my ability to visualize and see the world in pictures. (p. 20)
>
> I store information in my head as if it were on a CD-ROM disc. . . . The videos in my memory are always specific. (p. 24)
>
> All of these memories play like video-tapes in the VCR in my imagination. (p. 30)

Ledgin (2000) seems to agree. In *Diagnosing Jefferson*, he offers a list of 108 Asperger's traits, 47 of which he contends apply to Jefferson. In trait #34, Ledgin asserts that Jefferson "shows a talent for . . . visual representations" (p. 17). This trait and 46 others clearly place Jefferson on the Asperger's continuum, according to Ledgin.

Naturally, there are other ways of looking at a talent for visual representation. In a PBS video about Thomas Edison, Dr. Bernard Finn (1979), Curator of the Division of Electricity and Modern Physics at the Smithsonian Institution, responded to a question about how Edison visualized the electrical power generation and transmission system, "Edison's mind worked in sort of a pictorial manner, at least that's what we think, so that he really saw this almost literally." Later in that same video, Dr. Reese Jenkins of the Edison Papers Project at Rutgers University answered a question about Edison's intellect by saying, "It's an intellect that is comfortable and at home in a dimension that emphasizes the visual rather than the verbal."

Having dabbled as an inventor for years, I can report from personal experience that inventive insight comes more often than not in the form of a vision. The vision occurs suddenly, bursting upon the conscious mind in the stereotypical inventor's "lightbulb moment." In the vision, the device or mechanism is fully formed and functioning, but is curiously silent,

as if I were watching a full-color, 3-D holographic projection with the sound turned off.

Keirsey (2003) listed Edison as ENTP, although the MBTI® *Manual* says he exemplified "sensing creativity" (Myers, McCaulley et al., 1998). Whatever Edison's type preferences may have been, mine are not in doubt. I prefer Introverted Intuitive Perception. Could it be that Grandin, who designs entire systems in her mind, shares that capability with more people than she imagines?

There are at least two components to visual imagination. The first is the ability to picture in the mind's eye that which does not exist or is not perceivable in the physical world. The second is the ability to manipulate the mental image. Grandin (1995) wrote, "I am able to modify my mental images. For example, I can imagine a church painted in different colors or put the steeple of one church onto the roof of another" (p. 38).

Carolyn Barnes (1999), who provided quotation #2 in the Asperger's or Type exercise, also manipulates images in her mind. "If I'm explaining a concept, I catch myself moving invisible pieces around in front of me, drawing connecting lines on the blackboard or napkin or even pointing to something that exists only in my mind" (p. 3). Dr. Barnes, a former Psychological Research & Theory Interest Area Consultant for APT, has type preferences of ENTP.

In summary, what can be said about Asperger's Syndrome and the Perceiving function? Clark (2000) and Sainsbury (2000) seem to agree that being "different in some nameless but all-pervasive way" hints at a preference for Intuition. With their poor awareness of the outer world, Darius and P.S. appear to support the same conclusion. Even Grandin (1995), when she talks about her own associative communication with herself and others, seems to favor the Intuitive function.

The situation becomes ambiguous concerning the specific-to-general thinking process. Grandin (1995) gives mixed signals, whereas Sainsbury (2000) seems to indicate that Asperger's individuals prefer Sensing. With respect to visual thinking, Grandin again can be interpreted either way. Perhaps the best that can be said at this point is that the jury is still out. There is some evidence, at least in this preliminary exploration, on both sides of the S–N question.

> *The evidence relating a preference for Introversion or Extraversion to Asperger's Syndrome suggests that Introverts are more likely than Extraverts to be diagnosed with AS.*

Thinking and Feeling. Thinking and Feeling are the contrasting but equally rational processes by which people come to judgments about their perceptions. Although neither a preference for Thinking nor for Feeling decision-making directly implies skill in social interaction, Myers, McCaulley et al. (1998) suggested that Feeling types, more than Thinking types, may have an easier time developing such skill. "Persons making judgments with the Feeling function are more likely to be attuned to the values and feelings of others as well as to their own values and feelings" (p. 24).

An impairment in social interaction is mentioned in three of the six DSM-IV criteria for Asperger's Disorder. Furthermore, it ranks high on the list of traits mentioned by almost every author who writes about AS. Impaired or not, social skills significantly influence career choice. When they find employment at all, people with AS are known to cluster in a narrow range of professions. Two related aspects of AS, poor social skills and limited career choices, will be examined next.

Asperger's trait: Poor social skills. For the moment, I will hypothesize that people seen to have the Asperger's trait of "poor social skills" are more likely to be Thinking types than Feeling types. From the Asperger's side, Sainsbury (2000) provided the first example:

> My school reports usually contained comments such as: "While expressing her views with admirable vigour, Clare could occasionally make more allowance for the tentative opinions of others . . . ." (school report, 1990)
>
> This last comment is a masterpiece of understatement, given that at the time (my teens) I believed that I was being extremely helpful in English lessons by explaining to my classmates why they were wrong, complete with meticulous point-by-point demolitions of their views. As I saw it, we were there in order to study the texts and analyse them in a logical way, and we were surely all united in our aim of establishing the truth. (p. 49)

Quenk (1993) identified Sainsbury's search for objective truth as a characteristic of Introverted

Thinking types. "Introverted thinkers maintain the utmost objectivity. They approach people and events as dispassionate observers, with the main goal of arriving at the most comprehensive possible truth" (p. 109).

Sainsbury (2000) continued:

> How could we learn or progress if people didn't point out mistakes or ambiguities? After my teacher told me that I was upsetting the others, I gradually came to realize that I was contravening some sort of social rule, and tried over the years to restrain myself, but still find it baffling and counter-intuitive. (p. 49)

Quenk (1993) wrote, "Because they themselves do not take criticism personally, introverted thinkers are often surprised when they discover that others may be hurt or offended by the constructive criticism they offer" (p. 110). Myers and Myers (1980) also noted, "The least-developed process of the introverted thinkers inevitably is extraverted feeling. They are not apt to know, unless told, what matters emotionally to another person" (p. 90).

Sainsbury (2000) concluded:

> It wasn't until I was studying philosophy at university, where it was made clear that we should attempt to shred each other's arguments without restraint and that our tutors would do likewise to us (with the understanding that none of this was remotely personal but that this challenging was essential to learning and independent thought) that I finally felt at home. (p. 49)

But Quenk (1993) pointed out, "The process of objective analysis is a source of great enjoyment to the introverted thinker, with its outcome often of much lesser importance . . . . They often welcome tough, unrelenting critiques as helpful in achieving the highest levels of accuracy and objectivity" (pp. 109–110).

With Sainsbury (2000) at least, the hypothesis seems to be supported. She contributed to discussion in her English class with vigorous but dispassionate objectivity, was surprised when others were hurt or offended by this approach, and ultimately discovered that she felt at home in a university philosophy class where such toughness was not only expected, but demanded. All these are consistent with Quenk's (1993) and Myers and Myers' (1980) pictures of the Introverted Thinking types.

What about the type preferences of the teacher in Sainsbury's English class? According to Myers and McCaulley (1985), teachers at the high school level prefer Feeling over Thinking 58% to 42%. Focusing on English teachers, presumably at all levels, the numbers become F: 64.25%, T: 35.75%.

In other words, English teachers prefer the Feeling function by nearly two to one. In discussing the organizational uses of type but with perhaps some application here, Myers, McCaulley et al. (1998) wrote that a "Typical Work Stressor" for Feeling types is "critiquing and focusing on flaws," which is precisely what Sainsbury (2000) was doing. If the teacher and perhaps the students who were upset by Sainsbury's remarks can be seen as preferring the Feeling function, and if Sainsbury is seen as a Thinking type, then her experience in English class becomes a classic example of the conflict that can result from differing type preferences. If the teacher had known about psychological type, Sainsbury's experience might have been a much more positive one.

Asperger's trait: Limited career choices. Asperger (1944/1991), whose paper preceded Sainsbury's (2000) diagnosis by 56 years, added the element of career choice:

> To our own amazement, we have seen that autistic individuals, as long as they are intellectually intact, can almost always achieve professional success, usually in highly specialised academic professions, often in very high positions, with a preference for abstract content. We found a large number of people whose mathematical ability determines their professions: mathematicians, technologists, industrial chemists and high-ranking civil servants. (p. 89)

With nearly 50 years of research in psychological type to draw on, dependable information exists today that was not available to Asperger. For instance, Myers, McCaulley et al. (1998) wrote that Thinking types are drawn to "work that requires logical order, especially with ideas, numbers, or physical objects (such as in occupations with technical/scientific components)" (p. 293). More specifically, they continued, "NTs focus on theoretical frameworks, such as in science, technology, and management" (p. 294).

In the previous section on Sensing and Intuition, the evidence for S or N was somewhat ambiguous. Now the Thinking preference has not only been identified with Asperger's "highly specialised academic professions," it has been suggested that it is specifically the NT function pair that is drawn to such professions. This interpretation is confirmed by type research. Myers

and Myers (1980) found that NT types constitute a larger percentage than any other function pair in the fields of law (42%) and science (57%), whereas research scientists were 77% NT.

Do these qualify as Asperger's "highly specialised academic professions . . . with a preference for abstract content"? It would seem so. In what must surely be one of the greatest ironies to be found in the comparison of Asperger's Syndrome and psychological type, Sainsbury (2000) wrote that the word "'neurotypical,' often abbreviated to 'NT,' is a term coined by autistic people to describe the 'so-called normal' [people]" (p. 20). It might come as a shock to Sainsbury and others diagnosed with AS for them to learn that they themselves act very much like typical NTs in the nonpathological Jungian sense.

Although the NT function pair seems to fit Asperger's general observation about career choice, I have not examined his more specific point that such success is often found in the fields of mathematics, technology, industrial chemistry, and civil service. Mathematics in particular offers a fruitful line of inquiry.

Dr. Simon Baron-Cohen, Director of the Autism Research Centre at Cambridge University, has developed a screening instrument called the Autism Spectrum Quotient. The instrument was used to evaluate four groups of subjects: 58 adults with Asperger Syndrome or high-functioning autism, 174 randomly selected controls, 840 students in Cambridge University, and 16 winners of the UK Mathematics Olympiad.

In discussing the results of this experiment, Baron-Cohen, Wheelwright, Skinner, Martin, and Clubley (2001) wrote:

> The students in Cambridge University did not differ from the randomly selected control group, but scientists (including mathematicians) scored significantly higher than both humanities and social sciences students, confirming an earlier study that autistic conditions are associated with scientific skills. Within the sciences, mathematicians scored the highest. (p. 2)

Baron-Cohen et al.'s data seem to be consistent with Asperger's assertion that autistic people do well as scientists and mathematicians, although it does not address the question of their performance as high-ranking civil servants.

Psychological type is likewise related to career choice. In a study of 116 "highly creative" architects, mathematicians, research scientists, and writers, MacKinnon (in Myers & McCaulley, 1985, p. 215) reported the following preferences for Thinking and Feeling:

	Thinking	Feeling
Architects	51%	49%
Mathematicians	68%	32%
Scientists	77%	23%
Writers	35%	65%

In summary, what can be said about the judging function and Asperger's Syndrome? The DSM-IV (1994) places emphasis on an "impairment in social interaction," but Myers, McCaulley et al. (1998) imply that Thinking types may have a more difficult time than Feeling types in developing skill in the social arena. Sainsbury's (2000) anecdote from her English class seems to show a preference for Thinking. Myers and Myers (1980) support this contention with their observation that Thinking types, especially ITs, "are not apt to know, unless told, what matters emotionally to another person" (p. 90). Sainsbury (2000), Asperger (1944/1991), and Baron-Cohen et al. (2001) all refer to the success of autistic people in higher education, especially in the sciences and mathematics, but MacKinnon (in Myers & McCaulley, 1985) reports that Thinking types are particularly drawn to those fields.

Judging and Perceiving. The Judging and Perceiving dichotomy indicates which of the four functions, Sensing, Intuition, Thinking, or Feeling, is used in the outer world. Three Asperger's traits that may shed some light on the Extraverted function of someone diagnosed with AS are relentless reading, perseveration, and immaturity.

Asperger's trait: Relentless reading. An impairment in reading is not found among the DSM-IV (1994) diagnostic criteria for Asperger's Disorder. Still, there are some hints that reading, particularly relentless, uninterrupted reading, may be associated with AS. It is hard to imagine reading too much as a sign of a mental disorder, but, as Jungian analyst Alex Quenk (1984) previously reminded us, in the deviance model too much is as bad as too little. Thus, "relentless reading" may be considered a marker for Asperger's.

Intuitives report reading significantly more books than people with a Sensing preference (Myers, McCaulley et al., 1998). The number of books read increases in direct proportion to the Intuition score on the MBTI instrument. Thus, if the connection between relentless reading and AS can be established, the

presumption of a preference for Intuitive Perception will be strengthened as well.

Linda Rietschel (2000), whose son has been diagnosed with AS, wrote, "I have always felt that if we set a child with AS on a path alone, he would simply sit down and read a book forever" (p. 452). Sainsbury (2000) also talks about her extensive reading, and Grandin (1995), as usual, provides a good example of her internal process. "I have always been an avid reader, and I am driven to take in more and more information to add to my video library" (p. 38). In contrast, Myers, McCaulley et al. (1998), wrote, "In the Perceiving attitude, a person is attuned to incoming information . . . . Their aim is to receive information as long as possible in an effort to miss nothing that might be important" (p. 27).

Grandin's (1995) self-report seems to match Myers, McCaulley et al.'s (1998) description of the Perceiving attitude. The evidence therefore suggests, but does not prove, that Sainsbury (2000), Grandin, and Rietschel's son prefer to extravert the Perceiving function. In addition, because reading is associated with Intuition more than with Sensing, the suggestion of a preference for Intuition is also supported.

Asperger's trait: Perseveration. Perseveration is a "continued or repetitive activity or action" (Morris, 1970, p. 978). This agrees well with DSM-IV (1994) criterion B for Asperger's Disorder, which specifies "Restricted, repetitive, and stereotyped patterns of behavior, interests, and activities" (p. 84). However, among those who deal with AS on a daily basis, the term "perseveration" is often used to denote an obsessive interest in arcane subjects. Osborne (2002) explained:

> Even the tiniest Asperger boy can often be a walking *Encyclopedia Britannica entry* on different species of cicadas, obscure clock-manufacturing companies, telephone cable insulating firms, the passenger list of the *Titanic*, baseball trivia from 1921, say, to 1922, or the provincial capitals of Brazil. (p. vii)

Still, there is a considerable difference between simply knowing a lot about an arcane subject and talking about it. At dinner with a mother of two Asperger's boys, Osborne (2002) relates the following conversation:

> How, I asked, did she know they had Asperger's?
>
> "They can't read other people's minds. And they perseverate."
>
> It was an odd word. I needed a translation. "They obsess?"
>
> "They go on and on about a single subject that interests them. We call that perseverating." (p. 45)

Klin et al. (2000) explained in more clinical terms: "The communication style of individuals with AS is often characterized by marked verbosity. The child or adult may talk incessantly, usually about a favorite subject" (p. 323). From the perspective of type, Quenk (1993) noted that even the normally taciturn I_TP types can be unusually talkative at times. She wrote, "ISTPs are somewhat quiet and reserved, although they can be quite talkative on a subject where they can apply their great storehouse of information" (p. 246). On the other hand, "INTPs are somewhat quiet and reserved, although they can be quite talkative on a subject to which they have given a lot of thought" (p. 247).

In and of themselves, Quenk's (1993) observations do not specifically suggest a Perceiving attitude for people who perseverate. Their special meaning derives from the fact that the I_TP descriptions are the only two in which she refers to Introverts as "talkative." It has been previously established that Introverts more than Extraverts are likely to be diagnosed with AS. This is also true of Thinking types more than Feeling types. It now seems reasonable that there may be an association between Asperger's perseveration and a preference for Perceiving in the outer world. Whether the preference is for Sensing Perception or Intuitive Perception is, as has been the case all along, still in doubt.

Asperger's trait: Immaturity. The DSM-IV (1994) seems ambivalent about a presumed immaturity in a person with Asperger's Disorder. On the one hand, a "Qualitative impairment in social interaction" (criterion A, p. 84), and a "Clinically significant impairment in social, occupational, or other important areas of functioning" (criterion C, p. 84), seem to imply immaturity of some sort in the areas specified. On the other hand, the DSM-IV also requires that there be "No clinically significant general delay in language" (criterion D, p. 84) and "No clinically significant delay in cognitive development or in the development of age-appropriate self-help skills, adaptive behavior (other than in social interaction), and curiosity about the environment in childhood" (criterion E, p. 84). The DSM-IV seems to be saying that shortcomings may be observed in social and occupational areas, but not in cognitive or linguistic ones.

This same duality can be seen in the writings by and about persons diagnosed with high-functioning autism or Asperger's Syndrome. Grandin (1995) wrote, "In many ways I have remained a child. Even today I do not feel like a grown-up in the realm of interpersonal relationships" (p. 180). Grandin's emphasis is on the social immaturity of autistic people like herself. She seems unaware that when she is designing her famous livestock processing facilities she is in no way exhibiting immaturity of any kind. This is consistent with DSM-IV. Design, after all, is a cognitive function. As far as Grandin's feelings of immaturity "in the realm of interpersonal relationships," Myers and Myers (1980) provide a clue: "Even in effective adults, the two least-used processes remain relatively childish" (p. 183).

> *People with Asperger's Syndrome are said to have a poor awareness of even the most familiar of physical environments in which they routinely function.*

Which are Grandin's (1995) two least-used processes? Type theory tells us that for I_TPs, Feeling is the least used process, with either Sensing or Intuition as the tertiary. This is true of E_TJs as well, but because Introverts are more likely than Extraverts to be diagnosed with AS, I will focus on the Introverted Thinking types. The question at this point is whether there are any examples of Introverted Thinking types who have not been diagnosed with autism or AS and yet who feel as Grandin does. Quenk (1993) wrote of "Carl," a businessman with type preferences of ISTP:

> In one of his late night musings, Carl had written a lengthy essay that began with the words, "Am I a lost little boy in a grown-up world?" It went on to speak of his pain, loneliness, and desire for love and intimacy. (p. 120)

In this report Carl is "in the grip." That is, under stress, his inferior function has become energized and controls the personality. He *acts as if* his Extraverted function were Feeling judgment, but because Feeling is the inferior, his behavior is immature. He feels lost, like a "little boy in a grown-up world." Do the same dynamics hold in Grandin's (1995) case? Could it be that Grandin does "not feel like a grownup in the realm of interpersonal relationships" because of the nature of her inferior function? This makes sense if her true preference, like Carl's, is for Perceiving in the outer world.

Inappropriate Diagnosis of Well-Developed Types: Summary. The goal in this section was to examine the possibility that the deviance model, when coupled with psychiatry's bias toward pathology, results in diagnoses of Asperger's Syndrome in otherwise well-developed types. Fourteen traits have been examined that, for followers of the deviance model, provide clear evidence of a mental disorder. However, it has been difficult to separate the traits from the typical attitudes and behaviors of certain of the well-developed types.

Generally the correlations were clear. Introversion, Thinking, and Perceiving were linked to AS, whereas Extraversion, Feeling, and Judging were not. Sensing and Intuition were about equally correlated with AS. The function pair NT was linked to the disorder, but ST, SF, and NF were not represented. In terms of whole types, only the I_TP types seem to be at risk for a diagnosis of Asperger's Syndrome.

Two final quotations aptly illustrate the relationship between Asperger's Syndrome and psychological type. In the section on Sensing and Intuition, Sainsbury (2000) first spoke about her feelings of being different from the children around her. Here she elaborates:

> I think that I might be an alien who has been put on this planet by mistake; I hope that this is so, because this means that there might be other people out there in the universe like me. I dream that one day a spaceship will fall from the sky onto the tarmac in front of me, and the people who step out of the spaceship will tell me, "It's all been a dreadful mistake. You were never meant to be here. We are your people and now we've come to take you home."
>
> In the next few years, I would work out that the spaceship was never going to come and rescue me, but it wasn't until I was twenty that I finally found a name for my differences, when I was diagnosed with Asperger's syndrome, a mild form of autism. (pp. 8–9)

The second quotation is from Katharine Downing Myers (2002). In an interview, she was asked to share a story or anecdote from her long experience with type.

> At a conference, a man in his late 20s asks to speak with me. He has something important he wants to tell me. We go to a corner and sit down to talk. [He said,] "When I was a little boy, I felt I had been born into the wrong planet. Then I was told that if I prayed I would get what I prayed for. I used to stand by the window and look out at the night sky praying for the space ship that would come to take me to the planet where I belonged. None ever came. At college, I was given a questionnaire called the Myers-Briggs Type Indicator. When I went to the counselor for the results, he said, 'Sit down, I have something important to tell you.' He explained that there was something called an INTP, described the personality, and it was me. He said this preference type often felt out of place, that it was natural and perfectly OK to be that kind of person, that like all types there were advantages and disadvantages, and that there were other people like me in the world, and I could learn to spot them." The young man closed the conversation by saying this session with his counselor saved his life. (p. 48)

APPROPRIATE DIAGNOSIS OF POORLY DEVELOPED TYPES

The successful development of type leads to effective, emotionally satisfied, and stable people. The "thwarting [of such development] strikes at both ability and happiness" (Myers & Myers, 1980, p. 189). This exploration has focused so far on the possibility that AS may be an inappropriate diagnosis of well-developed types. It is time now to look at the evidence for poor type development. From the perspective of psychological type, is there ever a reason to see some of the traits of Asperger's Syndrome as indicative of a mental disorder?

People with Asperger's Syndrome are reported to have problems with anger, regret, and self-esteem. Many with AS are known to be rigid, both in their thought processes and in their behavior. They may emphasize logic and deductive reasoning to an extreme. They may not differentiate between the judging function of Feeling and the affective state of emotion. Finally, there is some evidence that people with AS simply talk too much. To summarize, there are six traits to be examined for indications of poor type development: anger and regret; reduced self-esteem; rigidity; overemphasis on logic; confusion of Feeling judgment and emotion; and talking too much.

Asperger's trait: Anger, regret. Anger and regret are common among people who suffer from Asperger's Syndrome. For the most part, such feelings seem to be justified: People with AS fare poorly at the hands of the world. Sainsbury's (2000) comment is typical:

> Five years later, looking back at my schooldays, I feel regret and anger for the needless pain I went through and for the energy that I and my teachers wasted pointlessly. If the right people had only been given the right information, more than a decade of my life might have gone very differently. Talking to other adults with Asperger's syndrome, I found that the same regret and anger were almost universal. (pp. 8–9)

Given the difficulties of her childhood, Sainsbury's (2000) anger and regret are understandable. Still, like so many other aspects of AS, her feelings do not automatically place her in the mentally disabled column. In many ways, her life is as normal as the people she rails against. Much the same could be said of Temple Grandin. In *American normal: The hidden world of Asperger's syndrome*, Osborne (2002) interviewed "Marla," whose life is vastly different from Sainsbury's or Grandin's:

> Marla herself would say that this was the beginning of her catastrophe—this refusal to see her as radically abnormal and to train her accordingly. Falsely mainstreamed, Marla split off from the human race and descended into her present seclusion. It's a seclusion that, as I could see for myself, was extreme, even by the standards of Asperger's unhappiness. (p. 192)

Marla has no outer life to speak of. She lives as a recluse. Window blinds drawn, doors forever closed, Marla exists almost as a prisoner in her own apartment. Like Sainsbury (2000), Marla (in Osborne, 2002) expresses anger at her present situation and regret that things haven't been better for her:

> "Everything came too late, because I was normalized." Marla was now tapping her knee ferociously and looking tensely at the blinds, as if she expected something appalling, like light, to suddenly erupt through them. "If I hadn't been normalized, I wouldn't have ended up so abnormal!" (p. 193)

It is tempting to see Marla as in the grip. Her symptoms fit the grip experiences of Introverted Thinkers. "Although expression of anger is common, often there is increasing self-pity and a sense of feeling neglected, unappreciated, and even victimized" (Quenk, 1993, p. 116). Nevertheless, in Marla's case a

simple eruption of the unconscious doesn't quite fit. Quenk's view of grip experiences for all types is that they are episodic and temporary. They subside spontaneously, ultimately bringing insight and balance among the functions. Marla seems to be permanently stuck in her angry isolation. There is no indication that she could ever resolve her difficulties and gain insight and balance. For a satisfactory explanation, a deeper explanation is needed. Myers and Myers (1980, p. 13) wrote, "The success of introverts' contacts with the outer world depends on the effectiveness of their auxiliary. If their auxiliary process is not adequately developed, their outer lives will be very awkward, accidental, and uncomfortable."

Marla's outer life is certainly "awkward and uncomfortable." Here then is the first indication of poor type development that can be linked to Asperger's Syndrome. A poorly developed auxiliary for Introverts seems to result in some of the traits commonly associated with the disorder.

Typically, people with Asperger's have an unusual learning style: intensely concrete rather than abstract, absorbed in details while having significant difficulty perceiving overall 'gestalts'.

Asperger's trait: Reduced self-esteem. People diagnosed with Asperger's Disorder generally encounter little validation in their lives. Their attitudes and beliefs are commonly censured, and their behavior is misunderstood. They may experience grip episodes more often than the general population, and some of them almost certainly have a poorly developed auxiliary with which to deal with the world. Under these circumstances, widespread problems with self-esteem should be expected. Sainsbury (2000) envies those less fortunate than herself: "Many 'low-functioning' autistic people have a sense of integrity and confidence in who they are that I envy . . . . They will never come to believe that it is they and not the world who are at fault" (p. 112).

The "low-functioning autistic people" Sainsbury (2000) envies are probably those with Kanner's Syndrome, although she doesn't explicitly say so. By contrasting the perceived integrity and self-confidence of such people with her own high-functioning autism, Sainsbury highlights her feelings of inadequacy in this area. The balancing thought is from Jungian analyst Alex Quenk (1984), who wrote, "An introvert, because the auxiliary function is extraverted, receives confirmation from the environment only for the auxiliary; the introvert must rely on self-awareness to ascertain the dominant function" (p. 5).

Two problems are implied here, either of which could lead to a reduced sense of integrity and self-esteem. First, if the individual does in fact receive confirmation from the environment for the auxiliary, then type theory predicts he or she will develop skill and confidence in the use of that function. If the messages from the environment are negative, as they invariably are for those diagnosed with AS, then it is doubtful that the Introvert will develop much skill in the use of the Extraverted function, and confidence in the use of that function will be diminished. Marla (Osborne, 2002) and Sainsbury (2000) may exemplify this scenario.

The second problem implied by Quenk (1984) is that Introverts become familiar with their dominant function through self-inspection. If the process of self-inspection is faulty or blocked, it is unlikely that the Introvert will ever develop much awareness of his or her own dominant function. Skill in using it will be correspondingly limited. It is easy to see how such a situation could lead to the lack of confidence and diminished sense of integrity reported by Sainsbury (2000).

From the perspective of psychological type, poor type development is again implicated in an Asperger's trait. A lack of awareness of either the auxiliary or the dominant function can result in decreased self-esteem; a reduced awareness of both functions might guarantee it.

Asperger's trait: Rigidity. In contrast to some of the other traits of Asperger's Disorder, rigidity is specifically called out in the diagnostic criteria. The DSM-IV (1994) stipulates "apparently inflexible adherence to specific, nonfunctional routines or rituals" (p. 84). Sainsbury (2000) concurs: "People with Asperger's are characteristically inflexible and have a great need for our personal routines" (p. 21). In a more descriptive passage, she drops the idea of routines and talks only about inflexibility in the face of change: "At least in part because we can't use social understanding to predict and control the behavior of others, we rely on things being predictable and events taking place exactly as

we are told they will—the alternative is complete chaos" (p. 21).

One way to see such inflexibility in Jungian terms is presented by Alex Quenk (1993). "The unconscious has an all-or-nothing character. [It] thus approaches life rigidly and responds in a fixed and automatic manner regardless of changing circumstances" (p. 275). Once again the inferior function, which is mostly unconscious, is implicated in Asperger's Syndrome. A temporary eruption of such material is seen as being "in the grip." However, a more permanent and disabling condition, such as that described by Sainsbury (2000), seems to qualify as poor type development.

Asperger's trait: Overemphasis on logic. The logical thought process is most identified in type theory with the Thinking preference. It is the objective, impersonal way of making decisions. Thinking is contrasted with its polar opposite, the Feeling preference, which is subjective and based on a personal or social value system.

People with Asperger's Syndrome are said to overemphasize logic. If logic, which is identified with the Thinking preference, is overemphasized, a corresponding underemphasis of the Feeling function would be expected. If such an imbalance is found, AS might reasonably be seen as a form of poor type development. The first example is from *Thinking in Pictures* by Grandin (1995). As an adolescent, Grandin attended a boarding school. She wrote, "There (boarding school) I had quickly learned which rules I really had to follow and which rules I could bend through careful observation and logic" (p. 102).

Here Grandin (1995) shows an awareness of the expectations of the social group. She has by this time figured out that some rules are more important than others. Her methods of "careful observation and logic" are typical of the Thinking preference. Whether the preference is overdone or not remains to be seen. Dr. Oliver Sacks gives us a hint when he writes, "Temple often compares her own mind to a computer" (in Grandin, p. 16).

Sacks is correct. Throughout *Thinking in Pictures*, Grandin (1995) compares her mind to a computer and uses images from digital technology to describe her thinking process. Typically she says something like the following: "Since I don't have any social intuition, I rely on pure logic, like an expert computer program, to guide my behavior. I categorize rules according to their logical importance. It is a complex algorithmic decision-making tree" (Grandin, p. 103).

Although it is a bit odd to guide one's behavior with "a complex algorithmic decision-making tree," the more significant part of Grandin's (1995) statement is her assertion that she has no social intuition and that she relies on *pure* logic. The absolute negative, "*no* social intuition," and the absolute positive, "pure logic," may indicate the imbalance that has been sought. Quenk (1993) supports this interpretation: "As inferior extraverted feeling becomes more and more prominent in the demeanor of the introverted thinker, it comes out in the form of logic being emphasized to an extreme" (p. 113).

Once again the "in the grip" experience is encountered, indicating at a minimum an eruption of the unconscious inferior function. If such an eruption continues for a significant portion of the individual's life, as it seems to have in Grandin's (1995) case, then a finding of poor type development is justified. Another aspect of Grandin's behavior also supports this view.

Asperger's trait: Confusion of Feeling judgment and emotion. Grandin (1995) wrote, "There is a process of using my intellect and logical decision-making for every social decision. Emotion does not guide my decision; it is pure computing" (p. 103). Grandin views her decision-making process in an absolute way. Hers is a black-and-white world. There is no emotion whatsoever; it is all "pure computing." Although this supports an earlier impression of an imbalance between Thinking and Feeling, there is another theme here that Grandin touches on throughout her book. This is the confusion between emotion *per se* and the Feeling preference. Both themes are present when she speaks of her approach to religion:

> As a totally logical and scientific person, I continually add data to my library of knowledge and constantly update both my scientific knowledge and my beliefs about God . . . . It is beyond my comprehension to accept anything on faith alone, because of the fact that my thinking is governed by logic instead of emotion. (Grandin, 1995, p. 189)

Again, Quenk (1993) provides an explanation consistent with type theory:

> In the grip of inferior extraverted feeling, introverted thinking types may not differentiate between the expression of feeling values and the expression of emotion. We may witness a confusion between feeling as a judging function and emotion as a state of physiological arousal. (p. 115)

Taken together with her absolutist approach to the decision-making process, Grandin's (1995) confusion of the judging function of Feeling with the physiological arousal of emotion suggests a case of poor type development in association with Asperger's Syndrome.

Asperger's trait: Talking too much. Perseveration, one mother of two Asperger's boys said, consists of going "on and on" about a favorite subject. Applied to psychological type, a certain verbosity was seen as typical of the I_TP types if the subject were in an area of special interest or expertise. However, when Grandin (1995) says she was talking too much, she does not seem to be addressing any particular area of specialized knowledge or proficiency. "I was still talking too much, but he put up with me because I figured out clever ways to solve problems" (Grandin, p. 108).

Three Asperger's traits that may shed light on the Extraverted function of someone diagnosed with AS are relentless reading, perseveration, and immaturity.

Ironically, one of the charges leveled against Thomas Jefferson was that he "talks too little most of the time" (Ledgin, 2000, p. 17). However, Jefferson is not with us and Grandin is. From the perspective of psychological type, Luzader (2001) reported, "Talk stays in one function, the one indicated by the J or P in the person's MBTI type" (p. 39).

The J or P indicates which function is used in the outer world. For Introverts, it is the auxiliary and for Extraverts, it is the dominant. Because I have previously theorized that Grandin (1995) prefers I_TP, her dominant function is probably Introverted Thinking. Quenk (1993) wrote, "Introverts who typically introvert feeling or thinking may feel they are overdoing it, telling too much or providing too much detail when they extravert that function" (p. 43). On the other hand, if I have misjudged Grandin and her dominant is Introverted Sensing or Introverted Intuition, Quenk has a similar comment: "Introverts who typically introvert sensing or intuition may feel overwhelmed or unfocused when they extravert that function" (p. 43).

Unlike people who perseverate on a single favorite topic, Grandin's (1995) verbal communication appears to be unfocused. Her perception that she was talking too much apparently stems from an inappropriate use of the Introverted dominant in the outer world, behavior that is strongly suggestive of poor type development.

Appropriate Diagnosis of Poorly Developed Types: Summary. My purpose in this section has been to ask whether Asperger's Syndrome could ever be seen as an appropriate diagnosis from the point of view of psychological type. Six Asperger's traits were examined, and in each case poor type development was associated with the diagnosis. Marla's (Osborne, 2002) angry isolation indicates an apparent lack of an adequate auxiliary process. Sainsbury's (2000) feelings of personal inadequacy seem to stem from a diminished awareness of either the auxiliary or the dominant function or both. In addition, Sains-bury's inflexibility in the face of change suggests an eruption of unconscious material. Such an eruption would not usually be considered poor type development, but in Sainsbury's case the permanence of her condition may warrant that interpretation. Grandin's (1995) black and white approach to her decision-making process indicates a permanent "in the grip" experience, a conjecture that is strengthened by her confusion of Feeling judgment and emotion. By talking too much, Grandin appears to be Extraverting a dominant introverted function, again suggestive of poor type development.

IDENTIFYING PYGMALION

In Greek legend, Pygmalion was a king of Cyprus who falls in love with a statue of the goddess Aphrodite. In a later version of the legend, the Roman poet Ovid creates a Pygmalion who is both sculptor and lover. He first shapes and chisels the statue and then falls in love with his own creation. More recently, George Bernard Shaw uses the legend of Pygmalion as the basis for his play of the same name. Henry Higgins, a cantankerous phonetician, transforms Cockney flower girl Eliza Doolittle into a grand lady by the simple expedient of training her to mimic the speech and behavior of the upper classes. The experiment over, Higgins summarily dismisses Eliza, who rejects his dehumanizing attitude (Merriam-*Webster's Encyclopedia of Literature*, 1995).

Professor Higgins and Pygmalion Rex, both sculptors of people, enjoy an advantage of position and authority over their subjects. They each skillfully employ powerful and finely honed tools of the sculptor's

trade, and they both work at home. These characteristics of the Pygmalion personality, which are often part and parcel of the human condition, can be found in Asperger's Syndrome as well.

In previous sections of this paper, I have examined two aspects of Asperger's Syndrome from the point of view of psychological type. In many cases, it appears that simple deviation from the social norm accounts for the diagnosis. In others, there does seem to be evidence of poor type development. In no case did I find that the type preferences of people diagnosed with Asperger's Syndrome were understood or encouraged. Pearman and Albritton (1997) pointed out that "the two most obvious places a person can be prevented from developing natural expressions are in the family and in school" (p. 84).

Sainsbury's (2000) anecdote from her English class exemplifies the role teachers can play in preventing natural development of type. However, more often than not, a diagnosis of Asperger's Syndrome begins in the home with parents who are concerned about their child's development. Typically it is the mother who notices that something is wrong. "Mother first realized that something was dreadfully wrong when I failed to start talking like the little girl next door, and it seemed that I might be deaf" (Grandin, 1995, p. 43).

Although I hypothesized that Sainsbury's (2000) English teacher may have had a preference for Feeling judgment, I have no evidence whatsoever about Grandin's (1995) mother's type. To complete the study of the relationship between Asperger's Syndrome and psychological type, I will look at four mothers whose children have been diagnosed with Asperger's Syndrome. As befits the statistics on AS, all of the children are male. I will attempt to glean an idea of the mothers' type preferences and to relate those to their sons' affliction. I will be alert to the tendency, like Pygmalion, to sculpt another in a shape pleasing to the sculptor. The four mothers, in alphabetical order, are anonymous, Rietschel, Shery, and Wallace.

Asperger's mother: Anonymous. In *American normal: The hidden world of Asperger syndrome*, Osborne (2002) related a conversation he had with a mother of two Asperger's boys: "How, I asked, did she know they had Asperger's?" "They can't read other people's minds. And they perseverate" (p. 45).

I previously used this conversation as a point of departure to explore perseveration. Now I will focus on the mother's comment about reading minds. First, I will eliminate the literal meaning of the remark. It is not likely that she means that her sons have AS because they cannot communicate telepathically with other minds. A conventional interpretation makes more sense. If this Asperger's mother means that her sons are not sensitive to the moods and motivations of themselves and others, then that may constitute for her a sign of mental illness. If she means that they do not easily understand or interpret people, that might be equally disturbing to her.

Pearman and Albritton (1997) noted a common human tendency: "We assume that what makes sense to us is best for all, and don't think about what others may actually appreciate more" (p. 154). If the anonymous mother sees the inability to "read other people's minds" as a fault *because she is so good at it herself*, then Keirsey and Bates (1978/1984) offer a comment suggestive of her type: "Generally, [ENFJs] . . . can read other people with outstanding accuracy" (p. 168). Because the ENFJ is the only type thus described by Keirsey and Bates, the first indication of the type preferences of the mother of an Asperger's child is as a Judging type with dominant Extraverted Feeling.

Asperger's mother: Rietschel. I last mentioned Rietschel when I was discussing "relentless reading" as a possible indication of Asperger's Syndrome. She remarked, "I have always felt that if we set a child with AS on a path alone, he would simply sit down and read a book forever" (Rietschel, 2000, p. 452). I will now look at the mother's attitude toward her son's behavior. Myers and Myers (1980) commented:

> The desirability or undesirability of most varieties of conduct, speech, opinion, and belief seems clear to them, *a priori*. They hold these truths to be self-evident. Thus, they are likely to have an immediate valuation of everything and an impulse to express it. (p. 95)

The subjects of Myers and Myers' (1980) remarks are the Judging types with dominant Extraverted Feeling, which is to say the E_FJ types. The "immediate valuation" Myers refers to is clear in Rietschel's (2000) comment on her son's relentless reading. She feels that sitting down and reading a book "forever" is a bad thing to do. I can likewise confirm the second part of Myers and Myers' prediction, the "impulse to express" the valuation. Rietschel doesn't just sit around waiting for her son to grow out of it. Not only does she verbalize her negative valuation of her son's behavior, she (and other people in the boy's environment) takes action to change it:

> In my son's case many people were always on that path with him, gently and not so gently prodding him to stand up and move on. He has. This is a trip that is at times heartbreaking and harrowing. We never let him stop on that path for long. (p. 452)

Carl Jung talked about a developmental path, too. Here, Jung's ideas are paraphrased by Lawrence (1993):

> One's type implies a developmental pathway through life. The 16 paths differ in just the ways that the types themselves differ. When a child is allowed and encouraged to stay on the path, the development that results is strong and healthy. If circumstances, including school life, push the child off the path, development is hindered; the child's energy goes into non-integrated skills and defenses; the process of becoming one's own person is slowed or stalled; and in adult life this person will have neuroses that absorb much energy and require still more energy to overcome. (p. 149)

Rietschel (2000) seems quite certain that she is doing the best for her son. Whether she is ultimately successful in affecting his development in a positive way, or only succeeds in pushing him off his developmental path, will be seen as he matures. One indisputable fact, however, is that this mother, like Pygmalion, has deliberately chosen to sculpt a person. She wants a son different from the one who was born to her. Like Pygmalion, she enjoys a huge advantage of position and authority over her offspring. She employs some of the most powerful sculpting tools available to modern psychiatry, and the sculpting process begins and is primarily carried out in the home.

Asperger's mother: Sherry. Although several of the Myers-Briggs types are more interested than others in social interaction, Keirsey and Bates (1978/1984) asserted, "ESFJs [are] the most sociable of all types" (p. 192). What then would "the most sociable of all types" make of a child who, "At birthday parties . . . had no interest in the other children or games, preferring instead to sit on the sidelines, staring at the wheels of a musical cassette tape turning round and round" (Shery, 2000, p. 444)?

On a previous page, Shery's (2000) words illustrated her son's tendency toward solitude, isolation, and being a loner, traits that many feel are indicative of Asperger's Syndrome. Now, look at the other side of the relationship, the mother and her role as a social leader. Again, Keirsey and Bates (1978/1984) tell us, "At a social gathering [ESFJs] can be observed attending to the needs of others, trying to insure that all are comfortable and involved" (p. 192).

From Shery's (2000) point of view, her son is neither involved nor comfortable, so the natural conclusion is that something is wrong with him. This does not automatically tag her as ESFJ. Her sister type, the ENFJ, is capable of similar behavior. "The ENFJ is more of a recreational leader, who insures that each member has fun at a party and that the right things are expressed at social occasions" (Keirsey & Bates, 1978/1984, p. 169).

Now there is a choice. As an ESFJ, Shery may see her son as uncomfortable and uninvolved. As an ENFJ, she may see him as just not having fun. In either case, I am left with a conjecture of E_FJ for the mother's type preferences. A different aspect of Shery's attitude is apparent as she looks back on her son's early life. "We didn't know that he was not experiencing life the way he should have been" (Shery, 2000, p. 444). Keirsey and Bates (1978/1984) wrote, "Values in an ESFJ may take the form of *shoulds* and *should nots* and may be freely expressed" (p. 192). No similar language is found in the description of the ENFJ, so the nod goes this time to the preference for Sensing. One final example will round out the exploration of Shery's type:

> My husband and I decided it was time to take Adam back to the neurologist he had seen 3 years earlier. He referred us to a child psychiatrist who spent a long time with the three of us before making a diagnosis. I can still hear his words, "I believe Adam has something called Asperger . . ." he and I both said the word, "syndrome" at the same time. (Shery, 2000, p. 445)

Many parents take their children to medical specialists for evaluation. They will, like Shery and her husband, eventually find themselves in an interview with that specialist. The specialist will offer a diagnosis of their child's condition. Conventional wisdom teaches that most parents in this situation receive the specialist's words in silence. If the diagnosis is negative, they often sit in stunned silence for some time before responding.

Shery (2000) breaks the conventional mold. She seems to actively track the psychiatrist's train of thought and to anticipate his conclusion correctly. Her instant willingness to verbalize the evaluation is reminiscent of the "impulse to express" discussed above. But where did her medical knowledge come from? Shery implies that this is the first time she and her husband have consulted

a psychiatrist about their son's condition, and yet she has obviously heard of Asperger's Syndrome. Is it possible that Shery is not as uninformed about psychiatry as may be supposed? Myers and Myers (1980) elucidate that possibility: "[ESFJs] are more attracted to pediatrics than to any other medical specialty, and they are more strongly attracted to it than any other type" (p. 96). They also say, "ENFJs do well in many fields, for example, as teachers, clergy, career and personal counselors, and psychiatrists" (p. 96–97).

If Shery's (2000) Perceiving preference is for Sensing, the pediatric aspects of her son's condition may have led her to learn about Asperger's Syndrome long before she sat in the psychiatrist's office. If her preference is for Intuition, then the psychology alone may have been sufficient. As before, the mother of a child diagnosed with Asperger's Syndrome seems to prefer E_FJ.

> *"Introversion, Thinking and Perceiving were linked to AS, whereas Extraversion, Feeling, and Judging were not. Sensing and Intuition were about equally correlated with AS."*

Asperger's mother: Wallace. A comparison with others is a common way for mothers to conclude that something is wrong with their children. Grandin's (1995) mother does this as does Shery (2000). In both cases, the mother compares her child to other children she sees as developing normally. That's not the only comparison that can be made. Walter Wallace's mother first noticed that he was not developing normally by comparing him with his grandfather, whom she sees as having similar problems:

> Just a few years earlier I had realized how much Walter was like his grandfather, a brilliant, eccentric chemical engineer . . . . One of the most outstanding eccentricities had to do with his aversion to high-pitched sounds. He spent much of his time working and relaxing in two large soundproof boxes, constructed for him at work and at home. In addition to the relief from the noise, the boxes provided the solitude he needed . . . . I didn't want Walter to grow up to be like his grandfather. In spite of his achievements, including a patent for a dairy creamer, he was, in many ways, a prisoner of his rigidity and rituals, and I hoped that Walter would not be such a loner. I knew one other man, a biostatistician, who seemed so much like Walter and his grandfather that I used to wonder if we were somehow related. He also isolated himself and was so unyielding in his habits that, despite his high abilities, working with him was difficult. I was determined to protect Walter from the difficulties these men faced on a daily basis. (Wallace, 2000, p. 434)

Although Wallace (2000) recognizes Walter's grandfather as an intelligent and accomplished man, it is his imperfections that provoke her concern. Keirsey and Bates (1978/1984) wrote, "[ENFJs] are likely to be very concerned about the problems of those close to them" (p. 168). Those close to Wallace include both Walter and his grandfather. Wallace's concern about the third man, the biostatistician, is diminished compared to what she feels for her immediate family. Within that family, deficiencies that may be tolerable in the older man are considerably less so when the grandson begins to emulate them. Again, Keirsey and Bates: "The children of an ESFJ are seen as an extension of the family, and all they do reflects on the ESFJ" (p. 194).

Like her predecessors, "The desirability or undesirability of most varieties of conduct, speech, opinion, and belief" (Myers & Myers, 1980, p. 95) seems clear to Wallace (2000). Furthermore, she has "an immediate valuation of everything and an impulse to express it" (Myers & Myers, p. 95). Although Wallace does not say what form her determination to protect Walter took, it is probable that she, like Rietschel (2000), will not sit idly by while Walter develops in ways of which she does not approve. Wallace's statements attest to a likely preference for E_FJ.

Identifying Pygmalion: Summary. In this section, I have explored the relationship between four mothers and their children who have been diagnosed with Asperger's Syndrome. The anonymous mother in Osborne (2002) feels that her two boys are deficient because they can't "read minds." Rietschel (2000) sees her son's tendency to "simply sit down and read a book forever" as unacceptable. Shery (2000) is concerned about her son's disturbing behavior at birthday parties, and Wallace (2000) wants Walter to be anything but like his grandfather. I have speculated on the mothers' type preferences, finding in each case a likely preference for E_FJ. Two of the mothers, Rietschel and Wallace, display a Pygmalion-like ambition to sculpt their

children into someone other than who they are. The evidence is not as clear for the anonymous mother and Shery, but the implication is that they too are familiar with Pygmalion's chisel.

According to the Asperger model, people are deficient if they show any of a number of traits. According to psychological type, these same people are likely to be seen as healthy with normal type development. For those who are diagnosed with Asperger's Syndrome, treatment is appropriate. The intent is to correct the inadequacy and to restore the individual to normal functioning. For those who learn about psychological type, appreciation is the dominant theme. The thought of changing another's behavior to something that others may view as more acceptable simply does not exist. Nowhere is this difference in perception and approach more starkly illustrated than in the following two quotations. The first is from Linda Rietschel (2000):

> Everything that we ever failed at has ultimately helped us later on. We now see how brave our son has been and how our struggle, and the struggle of the many people who know him, might just pay off. I hope that I have presented all my fellow AS parents with hope and ideas. Always remember that we can't change the diagnosis, but *we can mold the behavior* [emphasis added]. Do not ever stop trying. We will find our children in places that we never thought we would see them. (p. 453)

The second quotation is from Keirsey and Bates (1978/1984):

> Dr. Keirsey now challenges the reader to "ABANDON THE PYGMALION PROJECT," that endless and fruitless attempt to change the Other into a carbon copy of Oneself. "It's OK," he says, "to marry your opposite and beget children who are far from being chips off the old block, but it is not OK to take marriage and parentage as license to SCULPT spouse and child using yourself as a pattern to copy. PUT DOWN YOUR CHISEL. LET BE. APPRECIATE." (back cover)

CONCLUSION

There is nothing in the evidence reviewed here to indicate that Asperger's Syndrome does not exist. However, the evidence does suggest that there is inadequate discrimination between normal type development and the disordered state. In some cases, the reported traits, attitudes, and behaviors associated with Asperger's Syndrome are indistinguishable from the characteristics of well-developed types. Many of those being diagnosed with the mental disorder seem to qualify solely on the basis of their divergence from the social norm. The deviance model, coupled with psychiatry's bias toward pathology, seems to select for: I but not E, more N than S, T but not F, and P but not J.

In terms of function pairs, NT is more likely than ST to be seen as having Asperger's Disorder. A negative correlation exists between Asperger's Syndrome and the Feeling types SF and NF. For whole types, I_TPs appear to be at greater risk of being diagnosed with Asperger's Disorder than any other type, especially as children.

There is also support for the contention that Asperger's Syndrome represents poor type development. Such development can involve the lack of an adequate auxiliary process or a diminished awareness of either the auxiliary or the dominant. In some cases, an eruption of unconscious material is indicated. Although such eruptions are not usually considered poor type development, in AS the eruptions seem to be permanent. Finally, some evidence suggests that certain Introverts with AS attempt to extravert their dominant, i.e., introverted, function.

The influence of those around the person with Asperger's Syndrome is paramount. When the person is a child, mothers more than fathers seem to take an active role in first identifying their children's affliction. Typically such identification is based on a comparison of the child with another person, child or adult. There is in some cases a determined and prolonged attempt to change the child's behavior. The attitudes and behaviors of the mothers of Asperger's children suggest type preferences of E_FJ. This is consistent with the negative correlation between AS and the SF and NF function pairs.

A compilation of anecdotal evidence such as that attempted here will never adequately illuminate the relationship between Asperger's Syndrome and psychological type. That demonstration awaits more conclusive research. Hans Asperger proposed such research in 1944. He knew of the work of Jung and others on personality and was intrigued by some of the similarities. Asperger's translator Uta Frith (1991) remarked, "Sadly, Asperger never carried out this promised study" (p. 91). It is not hard to agree with Frith. Asperger's proposed research is long overdue. It is my hope that this review will lead to the performance of that research.

Answers to Asperger's or Type exercise:

1. Temple Grandin, Ph.D., diagnosed with autism.
2. Dr. Carolyn Barnes (ENTP) is a former Psychological Research & Theory Interest Area Consultant for APT.
3. J. K. (INTP) is a self-taught computer programmer.
4. Jared Blackburn (2003) is an autistic university student in the United Kingdom.
5. D. A. (INTP) is an electrical engineer.
6. W. C. (ENTJ) is a retired Air Force Colonel and successful business executive.
7. "Sarah" has been diagnosed with Asperger's Syndrome.
8. Comments by a teacher about Clare Sainsbury, diagnosed with Asperger's Syndrome.
9. Comments by a teacher about P. S., whose type preferences are INTJ.

REFERENCES

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Asperger, H. (1991). *Autistic psychopathy in childhood* (U. Frith, Trans.). In U. Frith (Ed.), *Autism and Asperger syndrome* (pp. 37–92). Cambridge, UK: Cambridge University Press. (Original work published 1944)

Barnes, C. B. (1999). Rooms of my mind: Introverted thinking. *Bulletin of Psychological Type, 22*(1), 1, 3.

Baron-Cohen, S. (2002). Is Asperger's syndrome necessarily a disability? *Development and Psychopathology, 12,* 489–500.

Baron-Cohen, S. (2003). Did Einstein and Newton have autism? *New Scientist*, *178*(2393), 10.

Baron-Cohen, S., Wheelwright, S., Skinner, R., Martin, J., & Clubley, E. (2001). The Autism-Spectrum Quotient (AQ): Evidence from Asperger syndrome/high-functioning autism, males and females, scientists and mathematicians. *Journal of Autism and Developmental Disorders, 31,* 5–17.

Blackburn, J. (2003). *University students with autism and Asperger Syndrome.* Retrieved May 14, 2003, from http://www.users.dircon.co.uk/~cns/article.html

Clark, P. C. (2000). Working from the inferior and shadow functions. *Bulletin of Psychological Type, 23*(5), 1, 3–4.

Finn, B. in J. Sharlach (Producer & Director). (1979). *Legacy of genius—The story of Thomas Alva Edison* [Videotape]. Washington, DC: Public Broadcasting Service.

Frith, U. (Ed.). (1991). *Autism and Asperger syndrome.* Cambridge, UK: Cambridge University Press.

Grandin, T. (1995). *Thinking in pictures and other reports from my life with autism.* New York: Doubleday.

Jenkins, R., in J. Sharlach (Producer & Director). (1979). *Legacy of genius—The story of Thomas Alva Edison* [Videotape]. Washington, DC: Public Broadcasting Service.

Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous Child, 2*, 217–250.

Keirsey, D. W. (2003). Rationals: Albert Einstein personality/nt.html Retrieved May 1, 2003, from http://keirsey. com/

Keirsey, D. W., & Bates, M. (1984) *Please understand me.* Del Mar, CA: Prometheus Nemesis Book Company. (Original work published 1978)

Klin, A., Volkmar, F. R., & Sparrow, S. S. (2000). *Asperger syndrome.* New York: The Guilford Press.

Landa, R. (2000). Social language use in Asperger syndrome and high-functioning autism. In A. Klin, F. R. Volkmar, & S. S. Sparrow (Eds.), *Asperger syndrome* (pp. 125–155). New York: The Guilford Press.

Lawrence, G. (1993). *People types & tiger stripes.* Gainesville, FL: Center for Applications of Psychological Type.

Ledgin, N. (2000). *Diagnosing Jefferson—Evidence of a condition that guided his beliefs, behavior, and personal associations.* Arlington, TX: Future Horizons, Inc.

Luzader, M. (2001). Applying type to communication. *Journal of Psychological Type, 56*, 37–39.

Mayes, S. D., Calhoun, S. L., & Crites, D. L. (2001). Does DSM-IV Asperger's Disorder exist? *Journal of Abnormal Child Psychology, 29*, 263–271.

Merriam-Webster's Encyclopedia of Literature. (1995). Springfield, MA: Merriam-Webster, Inc.

Miller, J. N., & Ozonoff, S. (1997). Did Asperger's cases have Asperger Disorder? *Journal of Child Psychology Psychiatry, 38*(2), 247–251.

Morris, W. (Ed.). (1970). *American Heritage Dictionary of the English Language* (School Edition). New York: American Heritage Publishing Co., Inc.

Myers, I. B., Kirby, L. K., & Myers, K. D. (1998). *Introduction to type* (6th ed.). Palo Alto, CA: Consulting Psychologists Press, Inc.

Myers, I. B., & McCaulley, M. H. (1985). *Manual: A guide to the development and use of the Myers-Briggs Type Indicator*. Palo Alto, CA: Consulting Psychologists Press, Inc.

Myers, I. B., McCaulley, M. H., Quenk, N. L., & Hammer, A. L. (1998). *MBTI manual: A guide to the development and use of the Myers-Briggs Type Indicator* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press, Inc.

Myers, I. B., & Myers, P. B. (1980). *Gifts differing.* Palo Alto, CA: Consulting Psychologists Press, Inc.

Myers, K. D. (2002). Eminent interview. *Journal of Psychological Type, 61*, 43–50.

Myers, P. B. (2002). Eminent Interview. *Journal of Psychological Type, 61*, 39–40.

Nash, J. M. (2002). The secrets of autism. *Time, 159*(18), 46–56.

Osborne, L. (2002). *American normal: The hidden world of Asperger syndrome.* New York: Copernicus.

Pearman, R. R., & Albritton, S. C. (1997). *I'm not crazy, I'm just not you: The real meaning of the 16 personality types.* Palo Alto, CA: Davies-Black Publishing.

Quenk, A. T. (1984). *Psychological types and psychotherapy.* Gainesville, FL: Center for Applications of Psychological Type.

Quenk, N. L. (1993). *Beside ourselves: Our hidden personality in everyday life.* Palo Alto, CA: CPP, Inc.

Quenk, N. L. (1996). Introverts are not abnormal. *Bulletin of Psychological Type, 19*(3), 40–41.

Rietschel, L. (2000). Parent essays: How did we get here? In A. Klin, F. R. Volkmar, & S. S. Sparrow (Eds.), *Asperger syndrome* (pp. 448–453). New York: The Guilford Press.

Sainsbury, C. (2000). *The Martian in the playground: Understanding the schoolchild with Asperger's syndrome.* London, UK: The Book Factory.

Shery, L. S. (2000). Parent essays: A view from inside. In A. Klin, F. R. Volkmar, & S. S. Sparrow (Eds.), *Asperger syndrome* (pp. 443–447). New York: The Guilford Press.

Tomlin, L. (1969–1970). William F. Buckley. Retrieved May 6, 2006, from http:// www.lilytomlin.com/videohome.html

Wallace, J. (2000). Parent essays: Walter. In A. Klin, F. R. Volkmar, & S. S. Sparrow (Eds.), *Asperger syndrome* (pp. 434–442). New York: The Guilford Press.

Wilson, M. A., & Languis, M. L. (1989). Differences in brain electrical activity patterns between introverted and extraverted adults. *Journal of Psychological Type, 18*, 14–23.

Mr. Chester (INTJ) is a retired teacher who found psychological type to be useful in numerous and diverse educational settings. He has been concerned for a number of years about the ready inclination of many in the psychiatric community as well as in the population at large to pathologize the normal differences between people.

CONTACT

Robert G. Chester
276 Dennis St. SW
Tumwater, WA 98501
N914TJ@earthlink.net

This *Journal* is being made available through the collaborative efforts of Dr. Tom Carskadon, Editor of the *Journal of Psychological Type,* and the Center for Applications of Psychological Type, Inc., CAPT, worldwide publisher. Dr. B. Michael Thorne serves as Executive Editor of the *Journal of Psychological Type*.

Journal of Psychological Type is a trademark or registered trademark of Thomas G. Carskadon in the United States and other countries.

CAPT is a not-for-profit organization dedicated to the meaningful application and ethical use of psychological type as measured through the Myers-Briggs Type Indicator instrument.

Myers-Briggs Type Indicator, Myers-Briggs, and MBTI are trademarks or registered trademarks of the Myers-Briggs Type Indicator Trust in the United States and other countries.

Center for Applications of Psychological Type, Inc. and CAPT are trademarks or registered trademarks of the Center for Applications of Psychological Type in the United States and other countries.

Copyright © 2006 by Thomas G. Carskadon, Editor.

ISSN 0895-8750.